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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/790,883	03/03/2004	Hisamitsu Takagi	1442.1018	4739
21171 7590 08/24/2007 STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			EXAMINER SINGH, RAMNANDAN P	
			ART UNIT 2614	PAPER NUMBER
			MAIL DATE 08/24/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/790,883	TAKAGI, HISAMITSU	
	Examiner	Art Unit	
	Ramnandan Singh	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-14 and 16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-14, 16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date. _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyashita [US 6,731,912 B1] in view of Beutler et al [US 5,933,330].

Regarding claim 12, Miyashita discloses a mobile radio communication apparatus, as shown in Figs. 10 and 11, comprising:

a first housing (52);

a second housing (50) foldable over the first housing[col. 8, lines 6-15]; and

a hinge part (54A) that foldably connects the second housing to the first housing around a rotational center axis [col. 8, lines 6-28],

wherein the hinge part includes:

a one touch opening part that automatically opens the second housing from a folded state by a first angle relative to the first housing around the rotational center axis in a non-stop motion [Fig. 8; col. 7, lines

22-25]; and

an auxiliary rotational part (54B) that rotates the second housing around an orthogonal shaft orthogonal to the rotational center axis of the hinge part [Figs. 10-11; col. 8, lines 16-28].

Miyashita does not teach expressly a hinge part containing a damper (i.e. spring) to break an opening action.

Beutler et al teach a portable radio telephone (100) having an upper housing (102) and a lower housing (108) rotatably connected via a hinge (116), as shown in Figs. 1-2 [col. 2, line 57 to col. 3, line 14] using a damper (i.e. spring) (370) part that brakes an opening action of the second housing by the one touch opening part [Figs. 3-4, 30; col. 3, line 64 to col. 5, line 5; col. 5, lines 46-57; col. 17, lines 30-61].

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teachings of Beutler et al with Miyashita in order to enable the upper housing 102 to be easily opened and closed [Beutler et al; col. 17, lines 59-61].

Claim 14 is essentially similar to claim 12 and is rejected for the reasons stated above.

Regarding claim 13, Beutler et al teach the mobile radio communication apparatus, wherein the damper part (370) brakes the second housing when the second housing forms a third angle or larger relative to the first housing [Figs. 3-4, 30; col. 3, line 64 to col. 5, line 5; col. 5, lines 46-57; col. 17, lines 30-61].

3. Claims 2-11, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyashita [US 6,731,912 B1] in view of Andrews et al [US 6,439,905 B2].

Regarding claim 7, Miyashita discloses a mobile radio communication apparatus, as shown in Figs. 10-11, comprising:

a first housing (52) ;

a second housing (50) foldable over the first housing [col. 8, lines 6-15];

a hinge part (54A) that foldably connects the second housing to the first housing around a rotational center axis [col. 8, lines 6-28], the hinge part including a one touch opening part that automatically opens the second housing from a folded state by a first angle relative to the first housing around the rotational center axis in a non-stop motion [Fig. 8; col. 7, lines 22-27] ; and

an auxiliary rotational part (54B) that rotates the second housing around an orthogonal shaft orthogonal to the rotational center axis of the hinge part [Figs. 10-11; col. 8, lines 16-28].

Miyashita does not teach expressly a flexible printed circuit board.

Andrew et al teach a flexible printed circuit board wound around an orthogonal shaft, the flexible printed circuit board electrically connecting the first and second housings to each other [Figs. 2-4, 6; col. 2, lines 54-63; col. 3, lines 5-28].

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teachings of Andrew et al with

Miyashita in order that the connector does not make contact with components mounted on the PCB [Andrew et al; col. 3, lines 10-12].

Claim 16 is essentially similar to claim 7 and is rejected for the reasons stated above.

Regarding claim 2, Miyashita further teaches the mobile radio communication apparatus, wherein the auxiliary rotational part (54B) inherently includes a cam part that clicks and provides a semifixed state whenever the second housing rotates by a predetermined angle around the orthogonal shaft [Figs. 10-11].

Regarding claims 3-6, the limitations are shown above.

Regarding claim 8, Andrew et al further teach the mobile radio communication apparatus, wherein the flexible printed circuit board is wound around the rotational center axis of the hinge part other [Figs. 2-4, 6; col. 2, lines 54-63; col. 3, lines 5-28].

Regarding claim 9, Miyashita further teaches the mobile radio communication apparatus, wherein the hinge part includes a free stop part (i.e. stopper claw 26) that maintains the second housing at a second angle different from the first angle relative to the first housing [Fig. 5; Page 11, line 25 to Page 13, line 2].

Regarding claims 10-11, the limitations are shown above.

Response to Arguments

4. With the finding of new prior art, new ground(s) of rejection are made. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(i) Ozouf et al [US 5,141,446] teach using a damper (330) between two components of a device that are hinged together [Fig. 4; Abstract]; and

(ii) Enright [US 6,149,442] teach hinge assemblies for electronic devices [Figs. 1-9; Abstract].

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramnandan Singh whose telephone number is (571) 272-7529. The examiner can normally be reached on M-TH (8:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang can be reached on (571) 272-7547. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ramnandan Singh
Examiner
Art Unit 2614

A handwritten signature in black ink, appearing to read 'Rn Singh', with a long horizontal flourish at the bottom.